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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/788,640

02/27/2004

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EXAMINER

FAULK, DEVONA E

ART UNIT

PAPER NUMBER

2615

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/788,640	Applicant(s) BURSON, STEVEN F.	
	Examiner Devona E. Faulk	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, filed 4/9/2007, with respect to the rejection(s) of claim(s) 1-20 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Froehlich et al.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2,4,5-10 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pallai (US 2001/0036291) in view of Froehlich et al. (US 5,551,419).

Regarding claim 1, Pallai discloses a headset (Figures 1 and 4) comprising an audio receiver (3 and 31; Figures 1 and 4);

a headset body to which the audio receiver is coupled (12, Figure 1), the headset body being configured to position the audio receiver near a headset user's ear;

a microphone located within one of the audio receiver and the headset body (60; page 2, paragraph 0028);

a flexible voice tube coupled to one of the headset body and the audio receiver, the flexible voice tube (24, Figures 1 and 4) defining a lumen therein extending between

an open end of the flexible voice tube and the microphone, the flexible voice tube being bendable into a curvilinear operative shape and position, the flexible voice tube generally retaining its curvilinear operative shape and position throughout its operative use until further adjustment (see abstract; page 2, paragraph 0031).

Pallai does not explicitly teach of preventing kinking of the flexible voice tube. Froehlich discloses a flexible conduit that is kink resistant (tube 14, Figures 1 and 2; column 4, lines 28-34). It would have been obvious to modify Pallai to have the tube be kink resistant in order to prevent kinks that could interfere with sound transmission through the tube.

Regarding claim 2, Pallai as modified by Froehlich discloses wherein the flexible voice tube is a spiral wound stainless steel flexible gooseneck tubing. Pallai discloses a voice tube comprising a metal coil spring (Pallai, page 2, paragraph 0032).

Regarding claims 4, Pallai as modified by Froehlich discloses wherein the flexible voice tube includes a shrink tubing over a stainless steel flexible tubing (Pallai, page 2, paragraphs 0032-0034).

Regarding claim 5, Pallai as modified by Froehlich discloses wherein the flexible voice tube includes a rigid collar at the open end thereof (Pallai, 23, Figures 1 and 4).

Regarding claim 6, Pallai as modified by Froehlich discloses wherein the headset body is selected from an earloop, earhook or a headband (Pallai, 2, Figure 1 reads on headband).

Regarding claim 7, Pallai as modified by Froehlich discloses wherein the curvilinear operative shape and position is between a bendable limit and an unbent

position, the bendable limit of the flexible voice tube being a point at which further bending of the flexible voice tube causes at least one of spring back to approximately the bendable limit, damage to the flexible voice tube, and permanent deformation of the flexible voice tube, and permanent deformation of the flexible voice tube. Pallai discloses a voice tube comprising a metal coil spring (paragraph 0032). A spring would implicitly have a bendable limit.

Regarding claim 8, Pallai discloses

a voice tube (4; Figures 1 and 4) comprising a kink-resistant flexible tubular member (24; Figures 1 and 4) having an open end and an opposing end, the opposing end being configured to be coupled to a microphone, the flexible tubular member being configured to be bendable into a curvilinear operative shape, the flexible tubular member being configured to generally retain its curvilinear operative shape throughout its operative use until further adjustment is made thereto (page 2, paragraph 0031; see abstract);

and a lumen defined by the flexible tubular member extending between the open end and the opposing end for acoustic transmission between the open end and the microphone. Lumen is defined as the inner open space or cavity of a tubular organ. Lumen is inherent because the 16a and 16b are telescoping portions of the tube (column 3, lines 14-16). Flexible is defined as capable of being bent repeatedly without injury or damage.

Pallai does not explicitly teach of preventing kinking of the flexible voice tube. Froehlich discloses a flexible conduit that is kink resistant (tube 14, Figures 1 and 2;

column 4, lines 28-34). It would have been obvious to modify Pallai to have the tube be kink resistant in order to prevent kinks that could interfere with sound transmission through the tube.

Regarding claims 9 and 13, Pallai as modified by Froehlich discloses wherein the flexible tubular member is a gooseneck member (Figures 1 and 4) and wherein the flexible tubular member includes a rigid collar at the open end thereof (Pallai,23, Figures 1 and 4).

Regarding claim 10, Pallai as modified by Froehlich discloses wherein the flexible voice tube is a spiral wound stainless steel flexible gooseneck tubing. Pallai discloses a voice tube comprising a metal coil spring (Pallai,paragraph 0032).

Regarding claim 12, Pallai as modified by Freohlich discloses wherein the flexible voice tube includes a shrink tubing over a stainless steel flexible tubing (Pallai, page 2, paragraphs 0032-0034).

Regarding claim 14, Pallai as modified by Froehlich discloses wherein the curvilinear operative shape and position is between a bendable limit and an unbent position, the bendable limit of the flexible voice tube being a point at which further bending of the flexible voice tube causes at least one of spring back to approximately the bendable limit, damage to the flexible voice tube, and permanent deformation of the flexible voice tube, and permanent deformation of the flexible voice tube. Pallai discloses a voice tube comprising a metal coil spring (paragraph 0032). A spring would implicitly have a bendable limit.

Regarding claim 15, Pallai discloses a headset (Figures 1 and 4) comprising an audio receiver (3; Figure 1);

a headset body to which the audio receiver is coupled (12; Figure 1), the headset body being configured to position the audio receiver near a headset user's ear;

a microphone located within one of the audio receiver and the headset body (60; page 2, paragraph 0028);

acoustic transmission means for acoustic transmission between an open end thereof and the microphone via a lumen defined by said acoustic transmission means extending between the pen end and the microphone (24, Figures 1 and 4) via a lumen(inherent), said acoustic transmission means being adjustable into a curvilinear operative shape and generally retaining the curvilinear operative shape until further adjustment is made thereto (see abstract; page 2, paragraphs 0031). Flexible is defined as capable of being bent repeatedly without injury or damage.

Pallai does not explicitly teach of preventing kinking of the flexible voice tube. Froehlich discloses a flexible conduit that is kink resistant (tube 14, Figures 1 and 2; column 4, lines 28-34). It would have been obvious to modify Pallai to have the tube be kink resistant in order to prevent kinks that could interfere with sound transmission through the tube.

Regarding claim 16, Pallai as modified by Froehlich discloses wherein the flexible voice tube is a spiral wound stainless steel flexible gooseneck tubing. Pallai discloses a voice tube comprising a metal coil spring (Pallai, paragraph 0032).

Regarding claim 17, Pallai as modified by Froehlich discloses wherein the acoustic transmission means is selected from the group consisting of a spiral wound flexible gooseneck tubing, the gooseneck voice tube including copper wiring wrapped in stainless steel wire; and a shrink tubing over a stainless steel flexible tubing (claim 17). Pallai discloses a voice tube comprising a metal coil spring (paragraph 0032) and shrink tubing (page 2, paragraphs 0032-0034).

Regarding claim 18, Pallai as modified by Froehlich discloses wherein the acoustic transmission means includes a rigid collar at the open end thereof (Pallai, 23, Figures 1 and 4).

Regarding claim 20, Pallai as modified by Froehlich discloses wherein the curvilinear operative shape and position is between a bendable limit and an unbent position, the bendable limit of the flexible voice tube being a point at which further bending of the flexible voice tube causes at least one of spring back to approximately the bendable limit, damage to the flexible voice tube, and permanent deformation of the flexible voice tube, and permanent deformation of the flexible voice tube. Pallai discloses a voice tube comprising a metal coil spring (paragraph 0032). A spring would implicitly have a bendable limit.

4. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pallai (U.S. Patent Application 2001/0036291) as applied to claims 1 and 8 above and Froehlich et al. (US 5,551,419) as applied to claims 1 and 8 above in view of Sawada et al. (U.S. Patent 5,350,638).



Regarding claims 3 and 11, Pallai as modified discloses a voice tube comprising a metal coil spring (paragraph 0032). Pallai as modified fails to disclose but Sawada teaches of the concept of copper wiring wrapped in stainless steel (column 5, lines 6-15). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use Sawada's concept of copper wiring wrapped in stainless steel in order to provide better flexibility to the tubing.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 571-272-7515. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DEF

  
**XU MEI**  
**PRIMARY EXAMINER**